

Europäisches Patentamt

European Patent Office

Office européen des brevets



(11) **EP 0 863 650 A3** 

(12)

## **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: 23.12.1998 Bulletin 1998/52

(51) Int Cl.6: **H04M 3/50**, H04M 3/42

(43) Date of publication A2: 09.09.1998 Bulletin 1998/37

(21) Application number: 98301335.0

(22) Date of filing: 24.02.1998

(84) Designated Contracting States:

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC

**Designated Extension States:** 

AL LT LV MK RO SI

(30) Priority: 07.03.1997 US 813513

(71) Applicant: LUCENT TECHNOLOGIES INC.
Murray Hill, New Jersey 07974-0636 (US)

(72) Inventors:

 Flockhart, Andrew D. Thornton, Colorado 80241 (US)

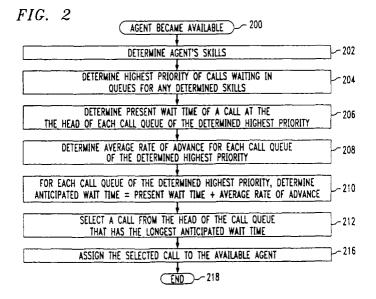
- Kohler, Joylee E.
   Northglenn, Colorado 80234 (US)
- Foster, Robin Harris Little Silver, New Jersey 07739 (US)
- Mathews, Eugene P. Barrington, Illinois 60010 (US)
- (74) Representative:

Buckley, Christopher Simon Thirsk Lucent Technologies (UK) Ltd, 5 Mornington Road Woodford Green, Essex IG8 0TU (GB)

## (54) Waiting-call selection based on anticipated wait times

(57) The maximum wait time for callers in a call center is lowered by selecting, for an agent who has just become available to handle a call, a highest-priority waiting call that would most likely wait the longest if it were not selected at this time. Anticipated wait times are computed for the calls at the heads of the non-empty highest-priority call queues that correspond to the agent's skills

or splits (202-210). The anticipated wait time of a call is computed as the call's present (elapsed) wait time plus the average rate of advance of calls in the call's queue (210). The call with the longest anticipated wait time is then selected first and is assigned to the available agent for handling (212-216). The process is repeated each time that any agent becomes available.





## **EUROPEAN SEARCH REPORT**

Application Number EP 98 30 1335

		ERED TO BE RELEVANT		51 4001F10
Category	Citation of document with ir of relevant passa	idication, where appropriate, ages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.6)
A	US 5 506 898 A (R.C 9 April 1996 * the whole documen		1	H04M3/50 H04M3/42
A	US 5 530 744 A (CHARALAMBOUS SALOMI T ET AL) 25 June 1996 * column 14, line 7 - column 20, line 42 *		1	
A	US 5 025 468 A (SIK 18 June 1991 * the whole documen	AND PARMINDER S ET AL)	1	
A	US 4 788 715 A (LEE 29 November 1988 * the whole documen	·	1	
A	US 4 881 261 A (OLI 14 November 1989 * the whole documen	PHANT JEAN R ET AL)	1	
Α	"PERFORMANCE MODELLING OF AUTOMATIC CALL DISTRIBUTORS: ASSIGNABLE GRADE OF SERVICE STAFFING" PROCEEDINGS OF THE INTERNATIONAL SWITCHING SYMPOSIUM, YOKOHAMA, OCT. 25 - 30, 1992, vol. 2, no. SYMP. 14, 25 October 1992, pages 294-298, XP000337733 INSTITUTE OF ELECTRONICS; INFORMATION AND COMMUNICATION ENGINEERS * the whole document *		1	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
P,A	US 5 642 411 A (THEIS PETER F) 24 June 1997 * the whole document *		1	
	The present search report has	been drawn up for all claims		
	Place of search	Date of completion of the search		Examiner
THE HAGUE 2 Nove		2 November 1998	Kel	peris, K
CATEGORY OF CITED DOCUMENTS  X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document		E : earlier patent doo after the filing date D : doourment ofted in L : doourment cited fo & : member of the sa	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document oited in the application L: document cited for other reasons  &: member of the same patent family, corresponding document	